

Connections

LEPC

A Virginia Local Emergency Planning Committee Newsletter

Vol. 1, No. 4, Summer 1999



Explosives Incident Tests Northern Virginia Responders

By Glen Rudner
Hazardous Materials Officer Area 1
Virginia Department of Emergency Services

A truck carrying 40,000 pounds of black powder proved to be a test for the Fairfax County Fire and Rescue Hazardous Materials Team, Fairfax County Police, and several state agencies that responded at 4 a.m. on June 2, 1999.

A semitrailer carrying an intermodal container entered the ramp from I-95 north to I-495 north, the outer loop of the Washington Beltway, at about 3:45 a.m. The container was loaded with multiple grades of black powder being transported from Norfolk International Marine Terminal en route to several manufacturers in the northeast.

The product was shipped from a manufacturer in Brazil through a broker from Arlington, Texas. There are laws regulating where explosives can be off loaded from marine vessels. The furthest

point north they may travel via marine transport is Norfolk.

As the semitrailer entered the turn, the driver claimed there was noise and the front end lurched to the left when this occurred. The vehicle rolled over on the left side as it entered the top of the curve, skidded on its side off the road and hit the berm/embankment and came to a stop.

Upon arrival of the first units, the ramp was shut down immediately and an assessment begun. Fairfax County Fire and Rescue removed the driver and co-driver from the vehicle and ascertained information about the load.

They then activated a full hazardous materials response to the scene. Based on the product and the recommendation by reference materials, the Beltway was shut down and evacuation was begun. The Fairfax County Fire and Rescue Hazardous Materials Team notified the Virginia EOC of the incident and requested assistance. The product manufacturer was not available due to location, and the shipping

papers had not been recovered from the vehicle at the time. Therefore, the HAZMAT team had to contact other technical resources for information regarding the safe handling of the product. Fairfax County Fire and Rescue had already contacted Fairfax County Police Explosive Ordnance Disposal (EOD) and were on the scene discussing the product. The Virginia State Police EOD provided assistance through two bomb technicians.

Upon arrival at the scene, I met with the Operations Officer and the HAZMAT Sector Officer to discuss what had happened, what was happening now, and what were the short- and long-term strategic goals to mitigate the incident. The short-term issues included specific identification of the product and its hazards, site safety issues, and vehicle stabilization. The long-term goals included reopening I-95, removal of the product, and remediation of the site if needed.

The most difficult issue early in the incident was obtaining information on the product. Fairfax personnel were eventually able to obtain the bill of lading and the remainder of the shipping papers. The information the hazardous materials team obtained clearly stated a major explosive hazard, and initial evacuation should be at least 2,500 feet in all directions.

As daylight came and the rush hour was in full swing, Incident Command decided that parts of the Beltway could be opened because of the position and protection factors of the accident site, as well as the fact that the vehicle had been stabilized.

During the initial stages of this incident, the incident commander for Fairfax County Fire and Rescue quickly recognized that this would be an extended operation requiring the efforts of other agencies to determine of the best course of action. The command staff had to assemble additional assets that included four private companies, more than (continued on page 3)

Environmental Impacts of Y2K Non-compliance

By Kyle Ivar Winter

P.E., Environmental Engineer Senior

Department of Environmental Quality

Piedmont Regional Office

The convention of a two-digit field to represent years in computer databases may result in system disruptions after January 1, 2000, when the date rolls over to "00". As many utilities, distribution and supply networks, and process control systems depend heavily on date-sensitive computer technology, equipment failures can be expected where this technology has not been modified to accommodate the date rollover. To the extent that such equipment failures impact pollution control equipment or industries subject to pollution control requirements, the risk of adverse environmental impact exists.

Given the number and types of industries in a locality, LEPCs may have to use a triage approach to addressing Y2K-related failures, focusing primarily on those facilities which, if a Y2K problem exists, have the greatest potential to adversely impact the environment. In medicine, triage places a lower priority on treating those most likely to recover without treatment and those most likely to die irrespective of treatment received.

Some Y2K-related shutdowns may prevent environmental impact (i.e., loss of power to a car wash effectively terminates the generation of wastewater). We will assume that the potential environmental impact from such facilities is inversely proportional to the degree that Y2K disrupts their operation.

At the other extreme, if no other alternatives exist, a chemical plant that uses automated process control equipment and is dependent on multiple outside utilities may need to shut down prior to January 1, 2000, in order to prevent a catastrophic release of pollutants. As some of these facilities may be under considerable economic, social, or political pressure to remain in operation, these facilities must receive the LEPC's attention now.

Industry-specific synopses of Y2K failures are beyond the scope of this article, but two anecdotes may illustrate the problems which may result from Y2K-related failures:

- During an unexpected power outage, a chemical plant was unable to secure the flow of steam (supplied from off-site) to its reactor vessels. While the plant operators were responding to the power outage, a reactor vessel overheated and discharged its contents in a nearby river.
- A voltage spike caused the process control motherboard at a sewage treatment plant to fail. The errant signal sent from the motherboard caused a tank decanting device to drain the tank, resulting in the release of solids in a nearby stream. The decanting device then mechanically failed, resulting in an overflow of raw sewage which continued to flow into the plant.

LEPCs may want to ask the following questions of local industries and utilities which may be sensitive to Y2K-related failures:

1. Have the operators received documentation from local utilities certifying the Y2K compliance of electrical power, water, LP gas, etc.?
2. If the answer to question number one above is "no", do the operators possess an alternate source for electricity, water,

etc.? Have these sources been certified Y2K compliant by their suppliers? How many days' supply of fuel, water, etc., are stored on site?

3. Has the switchgear which would automatically transfer loads between primary and alternate power sources been certified Y2K compliant?
4. Has the control circuitry for each pollution control unit been certified Y2K compliant (or in the case of industries, for process equipment whose failure would adversely impact the operation of pollution control equipment)?
5. Have the operators developed procedures for extended operation of the pollution control units (or, in the case of industries, for process equipment whose failure would adversely impact the operation of pollution control equipment) without electrical power and/or without automated control systems?
6. Have the operators determined the availability of frequently replaced parts, process and laboratory chemicals, lubricants, etc.? Are they developing adequate stocks to last for approximately three months?
7. Have the operators determined the Y2K compliance of sampling/analytical equipment and, if necessary, taken appropriate steps to either:
 - a. Develop approvable alternate sampling/analytical methods for parameters required to be reported under local, state or federal requirements?
 - b. Contract the services of a (certified Y2K compliant) consulting laboratory or contract wastewater operator?
8. Have the facility's frequent vendors/service providers (contract operators, contract maintenance, consulting laboratories) certified Y2K compliance? If not, what steps are the operators taking to procure alternate services?
9. Which of the following are anticipated to be ongoing at some time between October 1999 and March 2000:
 - a. Scheduled preventive maintenance of critical process/pollution control equipment
 - b. Corrective maintenance which must be scheduled for the above time slot because of fiscal/time constraints
 - c. Facility upgrades/expansion
 - d. Quarterly or annual effluent/groundwater/surface water sampling

Which of these operations are required by local/state/federal statutes or regulations?
How would problems related to 1-8 above impact these operations? What contingency plans have been developed?
10. Are the chief responsible officers (plant managers, county administrators, etc.) aware of the status of 1-9 above? Do they understand their liabilities/immunities under existing statutes and regulations?

"Is HazMat Ready for the New Millennium?"

1999 Virginia Hazardous Materials Conference

September 23-25, 1999

Cavalier Hotel

Virginia Beach, Virginia

For information call: Commonwealth Conventions at (757)491-2800

Governors Urged to Prepare for Possible Y2K-related Hazardous Materials Problems

By Phil Cogan
Special Assistant to Chairman
Chemical Safety Board

The nation's governors have been urged to review and act on Chemical Safety Board (CSB) recommendations designed to avert or minimize the effects of Year 2000 technology problems which may affect industrial chemical safety.

In July, the CSB distributed a letter urging action on Y2K chemical safety issues to all 50 state governors and chief executives of the Northern Mariana Islands, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands. Accompanying the letter was a copy of the CSB's report to the U.S. Senate, "Year 2000 Issues: Technology Problems and Industrial Safety" (CSB Y2K Report).

The letter notes that government surveillance of industry sectors that handle high-hazard chemicals is insufficient to draw detailed conclusions regarding Y2K compliance. Generally, the CSB has found that larger organizations appear to be more active in preparing for Y2K problems than small- and medium-size enterprises or SMEs, although conclusions about SMEs are based on incomplete information.

SMEs are more likely to be at risk because many are less aware of chemical safety in general and the Y2K impact in particular, and they may lack financial resources and technical know-how for fixing the problems.

Given the approach of Y2K-related deadlines, the letter notes "addressing this situation requires a massive effort" that should focus on the following key tasks:

- Providing easy-to-use awareness and assessment tools and training
- Promoting accessible resources
- Providing attractive incentives for Y2K compliance efforts

The letter says that "while federal agencies are aware of and involved in Year 2000 technology and chemical safety issues, significant gaps in surveillance, independent verification, and compliance assistance exist. The largest responsibility

for public health and safety will reside at the state and local level, particularly involving the emergency response community."

"State and local preventative actions are needed," writes CSB Board member Gerald V. Poje, Ph.D., who has spearheaded the Board's Y2K actions on behalf of CSB Chairman Paul L. Hill, Jr., Ph.D.

Poje points to California as an example of state Y2K actions which others might emulate. Governor Gray Davis has issued an Executive Order on Y2K and directed state agencies to prevent accidental releases of hazardous materials. State and local agencies there are assessing the Y2K readiness of their 110,000 hazardous materials handlers and assisting them in preventing accidental releases. Each year, California experiences some 5,000 hazardous materials incidents but has only 62 highly specialized hazardous materials response teams.

Poje asks the governors to share the report and its recommendations with relevant state and local agencies.

The CSB is an independent federal agency with the mission of ensuring the safety of workers and the public by preventing or minimizing the effects of industrial and commercial chemical incidents. Congress modeled it after the National Transportation Safety Board (NTSB), which investigates aircraft and other transportation accidents for the purpose of improving safety.

Like the NTSB, the CSB is a scientific investigatory organization. The CSB is responsible for finding ways to prevent or minimize the effects of chemical accidents at industrial facilities and in transport. The CSB is not an enforcement or regulatory body but can make recommendations aimed at preventing future accidents to the Congress, industry, federal, state or local agencies, trade associations or others.

Explosives Incident (continued from page 1)

100 fire and rescue personnel and equipment, more than 150 state and local police, and scores of Virginia Department of Transportation personnel. It took several hours to assemble these assets.

The Virginia State Police, Fairfax County Police, and VDOT began to move the traffic load from the mainline Beltway and I-95 to alternate routes. The VDES Regional Coordinator, Curt Nellis, assisted Fairfax County Assistant Emergency Services Coordinator, Alexandra Craig, in coordinating the evacuation of homes near the incident. Several agencies provided technical assistance as well. These included Virginia State Police, Ft. Belvoir EOD, Andrews Air Force Base EOD, and the Quantico Marine Base EOD. The Institute of Makers of Explosives in Washington, D.C., helped us contact a manufacturer of the same product in Louisiana who was able to assist us in meeting strategic goals and tactical objectives.

We offloaded the product using personnel from all participating agencies, under EOD supervision and wearing cotton clothing to reduce the chance of static discharge. The incident was terminated at 10 p.m., approximately 17 hours after it started.

Challenges confronting responders included assembling the necessary resources to handle the incident itself, traffic management, and developing and implementing the operation plan while ensuring public and employee safety.

We also questioned whether emergency responders had the necessary training and resources to handle the incident and what could have been done to minimize this incident's impact on traffic.

Some of the lessons learned include:

- The use of Unified Command is necessary when multiple agencies and jurisdictions are involved.
- Planning is a key issue. If we spend the time to develop a plan, we need to spend the time updating and practicing the plan. We also need to make sure that we involve all personnel who will implement the plan.
- Disseminate information to the public in a timely fashion to lessen the impact on motorists.

"MAKE A DIFFERENCE"
U.S. EPA Region III
1999 Chemical Emergency Preparedness and
Prevention Conference
September 20-23, 1999
Washington Hilton & Towers, Washington, DC
For information call: (877)804-CEPP

Contingency Planning for Airline/Airport Hazmats- A Workshop Followup: It Could Happen Anywhere !



*By William D. Martin
HAZMAT Response Team Coordinator
Metropolitan Washington Airports
Authority*

It's been a little over two months since our workshop on Contingency Planning for Airline/Airport Hazmats at Fort Eustis, Virginia. Now is a good time to take a moment to look back on the workshop and answer a couple of questions. Have we made that initial contact with airport fire and rescue departments or the airport managers? Do we know what resources the airports have and what we are expected to bring in the event of a disaster or HAZMAT Incident? Do we know who and how to contact those personnel at the airports if needed?

Making that initial contact with airport

authorities can be the most difficult task to accomplish. The first problem is finding time in our busy schedules to meet with these individuals to plan for this type incident. We must prioritize our work load and do a good risk assessment. If we plan for aircraft/airport emergencies, we should have smoother command and control than if we do not plan. Accidents will happen—the question is when, where, and what will be our response.

Many airports have valuable resources that are not usually found in city, county or state agencies. Some of the resources are units for Mass Casualty Incidents or MCI, foam units, and large quantities of foam supplies and absorbent materials. Airlines can provide aircraft flight and maintenance information. Flight information will be valuable when trying to find the flight

origination point, the number of passengers on board, approximately how much fuel was remaining at the time of the incident, and any hazardous materials that may be on board and their location in the cargo area. Airline maintenance personnel can assist you by providing information such as where the battery is located and how to access and disconnect it.

We know how to contact CHEMTREC 24 hours a day in a chemical emergency, but do we know the contact numbers for aircraft assistance should we have an aircraft emergency in our first due? Important numbers include your local airport fire and rescue department, airport manager, and/or airport operations and a number for the operations offices of all commercial air carriers that use your airport. Do not use the 1-800 numbers for the air carriers as this may get you ticketing or other unimportant numbers. Know the number that gets you direct contact with the air carrier's operations office.

Planning should be the most important step in responding to an emergency. It's always nice to have met the people you will need to work with before rather than during an incident. Many state and federal agencies will be involved at the scene, and coordination will be the key to managing a successful incident with everyone accomplishing their tasks in a safe and timely manner.

In our next issue, we will discuss 14 CFR 139, Airports Certification and Operations.

LEPC Connections

Virginia Department of Emergency Services
Technological Hazards Division
10501 Trade Court
Richmond VA 23236-3713

This newsletter is a vehicle to help LEPCs exchange information and keep abreast of state and federal initiatives.

Tell us what you are doing. We will publish stories, initiatives, projects, studies, or issues that will be of interest to LEPCs and the Virginia hazardous materials response community.

Please submit your comments or recommendations to George Roarty at:
Fax (804) 897-6576
email: groarty.des@state.va.us